

**ABSTRACT OF THE DISCLOSURE**

[0080] A system and method for efficiently performing memory intensive computations including a bidirectional synchronization mechanism for maintaining consistency of data on which computations will be performed. This can be used to solve various problems such as those in a business context. Synchronization occurs in a near-real-time fashion between data in a database and data stored in memory. The synchronization is accomplished by periodically scanning the database to see if any data has changed. If any data has changed, the changes are copied over to memory so that the data in memory is current. This update is accomplished without copying the entire database into memory each time data in the database changes.